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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,336	01/20/2004	Dennis J. Klein	3780.002	9814
24040	7590	04/28/2005	EXAMINER	
DENNIS G. LAPOINTE LAPOINTE LAW GROUP, PL PO BOX 1294 TARPON SPRINGS, FL 34688-1294			WILKINS III, HARRY D	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,336

Applicant(s)

KLEIN ET AL.

Examiner

Harry D. Wilkins, III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) 9-20 and 29-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 21-28 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer does not comply with 37 CFR 1.321(b) and/or (c)

because:

It is directed to a particular claim or claims, which is not acceptable, since "the disclaimer must be of a terminal portion of the term of the entire [patent or] patent to be granted." See MPEP § 1490.

The person who has signed the disclaimer has not stated the extent of his/her interest, or the business entity's interest, in the application/patent. See 37 CFR 1.321(b)(3).

2. No terminal disclaimer was filed with respect to the double patenting rejections based on US 6,689,259.

Claim Objections

3. Claim 1 is objected to because of the following informalities: the amendment to claim 1 reciting "and are not connected electrically to a power source" is unclear since the preceding clause does not relate to the supplemental electrodes. It is suggested that this language be changed to more clearly define that it is the supplemental electrodes that are not connected electrically to a power source. One specific suggestions is to add "wherein the supplemental electrodes" between "and" and "are". Appropriate correction is required.

Claim Interpretation

4. Claim 1 recites "heat sink means". However, this language is not deemed to meet the requirements to invoke 35 USC 112, 6th paragraph because the claim further

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defines the means a being "in the form one or more external fins". Hence, the language of claim 1 does not invoke 112, 6th paragraph.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 1-8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 6,866,756.

Although the conflicting claims are not identical, they are not patentably distinct from each other because claim 1 of the '756 patent includes an electrolyzer for separating water including an aqueous electrolyte solution comprising water partially filling an electrolysis chamber such that a gas reservoir region is formed above the aqueous electrolyte solution, two principal electrodes comprising an anode and cathode being at least partially submerged in the solution, one or more supplemental electrodes at least partially submerged in the solution and interposed between the principal electrodes wherein the two principal electrodes and the one or more supplemental electrodes are held in a fixed spatial relationship and the electrolyzer producing a combustible gas

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comprising hydrogen and oxygen. Regarding the limitation that the combustible gas has a varying energy content depending on its use, this relates to the manner of operation of the claimed electrolyzer. It is well settled that the manner of operating a device does not differentiate apparatus claims from the prior art. See MPEP 2114. The electrolyzer of the '756 patent has an identical structure and, thus, would have been capable of operating in the claimed manner. Regarding the newly added limitations of claim 1, claim 4 of the '756 patent teaches an electrode spacing of 0.15-0.35 inches, claim 2 of the '756 patent recites that the supplemental electrodes are not connected to the principal electrodes (thus, they are not attached to the power source), claim 1 of the '756 patent recites heat sink means for removing excess heat generated by the electrolyzer including a plurality of external fins, and it is implied by claims 16 and 17 that the electrolyzer is non-vented and adapted to being installed in a closed pressurized piping system.

7. Claims 21-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 5 of U.S. Patent No.6,689,259. Although the conflicting claims are not identical, they are not patentably distinct from each other because the hydrogen and oxygen generator of '259 (line 6) is defined in the specification (see col. 5, lines 30-32) as generating hydrogen and oxygen by electrolyzing an electrolyte, i.e.-an electrolyzer. See *In re Vogel* 164 USPQ 622 regarding use of the specification only as a dictionary to define claim terms. In addition, in claim 5, '259 discloses a filter fluidly coupled to the top portion of the electrolytic reservoir and adapted to remove moisture. Thus, '259 does not disclose the filter means

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being placed such that the generated hydrogen and oxygen pass through the filter before being drawn for use. However, since the filter of '259 is fluidly coupled to the gas reservoir, the produced gas would necessarily pass through it before being drawn off for use. In addition, while the claims of '259 are silent with respect to the combustible gas having a varying energy content depending on its use, this is a method limitation. The claim of '259 teaches the same structure as is presently claimed, and thus, would have been capable of operating in the claimed fashion. See MPEP 2114. The manner of operating a device does not differentiate apparatus claims from the prior art. In response to the amended subject matter of claim 21, though the claims of the '259 patent are silent as to the hydrogen and oxygen generating electrolyzer being a non-vented type being installed in a closed pressurized system, one of ordinary skill in the art would have found this to be an obvious variation due the necessity of keeping the system enclosed to prevent produced gas from escaping into the atmosphere as waste. Regarding present dependent claims 22-28, each of these claims further limits the manner of operating the electrolyzer system and do not add further structural limitations. Thus, these claims are also met by the welder of the '259 patent.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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10. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "non-vented" in claim 1 is used by the claim to mean "intermittently opened" (as evidenced by Applicant's arguments on page 16 of the response filed 8 March 2005), while the accepted meaning is "completely closed". The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The rejection grounds based on Gonzalez (US 4,450,060) have been withdrawn in view of Applicant's amendment to claim 1 adding additional subject matter including the heat sink means.

13. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (US 5,614,069) with evidentiary support from Wong et al (US 4,181,588).

Lin teaches the invention substantially as claimed. Lin teaches (see abstract and figures 2, 3 and 6) an electrolyzer including an electrolyte partially filling an electrolysis chamber such that a gas reservoir region is formed above the electrolyte. Also

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described are two principle electrodes connected to a power supply as anode and cathode at least partially immersed in the electrolyte and a plurality of supplemental electrodes at least partially immersed in the electrolyte and not connected electrically to a power source. There are heat sink means in the form of multiple external fins for removing heat from the electrolyzer. The electrolyzer produce a combustible gas composed of hydrogen and oxygen.

It would have been obvious to one of ordinary skill in the art to have made the electrolyzer of Lin to be "non-vented" (i.e.-intermittently opened) in order to allow the gas to be drawn off only when the demand was needed. The apparatus of Lin appears to be a closed pressurized piping system.

Regarding the limitation that the combustible gas has a varying energy content depending on its use, this relates to the manner of operation of the claimed electrolyzer. It is well settled that the manner of operating a device does not differentiate apparatus claims from the prior art. See MPEP 2114. The electrolyzer of Lin has an identical structure and, thus, would have been capable of operating in the claimed manner.

Thus, Lin fails to teach that the electrode spacing is 0.15 to 0.35 inches.

However, it would have been within the expected skill of a routineer in the art to have optimized the electrode spacing to be any optimum value, such as 0.15 to 0.35 inches, in order to optimize the current efficiency of the electrolyzer. Electrode spacing was known to be a result effective variable as evidenced by Wong et al (see col. 5, lines 34-60) that affected current efficiency of electrolysis reactions.

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Regarding claims 2-8, these claims are related to the gas produced by the claimed electrolyzer. Applicant is reminded that the patentability of apparatus claims is not dependent upon the manner of use. The structure taught by Lin meets the claimed structure. Hence, Lin meets the limitations of claims 2-8.

Response to Amendment

14. The declaration under 37 CFR 1.132 filed 8 March 2005 is insufficient to overcome the rejection of claims 1-8 based upon Gonzalez as set forth in the last Office action because: the data submitted by Applicant merely pertains to the manner of operating the claimed apparatus. The patentability of apparatus claims is not dependent upon how the apparatus performs; it is dependent upon the structure of the claimed apparatus. It is noted above however that the rejection grounds based on Gonzalez have been withdrawn due to additional subject matter being added to claim 1.

Response to Arguments

15. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

However, the Examiner would like to respond to the main thrust of Applicant's arguments, in particular that the prior art electrolyzer does not produce the same gas as is produced by Applicant's electrolyzer. Applicant's attention is again brought to section 2114 of the MPEP. "While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function". "Apparatus claims cover what a device is, not what a device does". "A claim containing a "recitation with respect to the manner in

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which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim”. Thus, Applicant’s arguments regarding the formation of a different gas are not of consequence in an apparatus claim unless Applicant can *prove* that the prior art apparatus was incapable of operating in the same manner.

Election/Restrictions

16. This application contains claims 9-20 and 29-50 drawn to an invention nonelected with traverse in the response filed on 5 November 2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

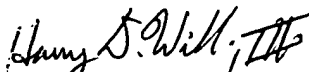
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry D. Wilkins, III whose telephone number is 571-272-1251. The examiner can normally be reached on M-Th 10am-8:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Harry D Wilkins, III
Examiner
Art Unit 1742

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